

ABSTRACT OF THE DISCLOSURE

The inhomogeneous energy distribution at the beam spot on the irradiated surface is caused by a structural problem and processing accuracy of the cylindrical lens array forming an optical system.

According to the present invention, in the optical system for forming a rectangular beam spot, an optical system for homogenizing the energy distribution of the shorter side direction of a rectangular beam spot of a laser light on an irradiated surface is replaced with a light guide. The light guide is a circuit that can confine emitted beams in a certain region and guide and transmit its energy flow in parallel with the axis of a path thereof.